HW#91: Rhombus, Rectangles, and Squares

Geometry

Due: Monday, March 7th

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

**Failure to show all work (including drawing & labeling shapes) will result in LaSalle!**

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| 1. One diagonal of a rhombus is 6 inches and the other is 8 inches. Draw it:   a. How long is each side of the rhombus?  b. Find the perimeter.  c. Find the area. | 1. The diagonal of a square is 20 cm. Find the length of one side of the square and the perimeter of the entire square. Draw it:   a. How long is each side of the square?  b. Find the perimeter.  c. Find the area. |

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| 1. The size of the obtuse angle of a rhombus is twice the size of its acute angle. The side length of the rhombus is equal to 20 feet. Find its area. | 1. **8)** The lengths of the diagonals of a rhombus are 10 and 24 meters. Find the perimeter of the rhombus. |
| 1. The perimeter of a rhombus is 60 feet and one of its diagonal has a length of 20 feet. Find the other diagonal & the area of the rhombus. | 1. If the area of a parallelogram is 630 in2, and the height is there times the base, find the measures of the height and base. Round every step to the nearest tenth. |
| 1. Classify all quadrilaterals—*parallelogram, rectangle, rhombus,* and *square*—for which the statement is true. (There may be more than one answer per statement.) 2. It is equilateral. 3. The diagonals are congruent. 4. It can contain obtuse angles. 5. It contains no acute angles. | 1. Classify the special quadrilateral. *Explain* your reasoning. Then find the values of *x* and *y.* |
| 1. Classify the special quadrilateral. *Explain* your reasoning. Then find the values of *x* and *y.* | 1. The diagonals of rhombus *PQRS* intersect at *T*. Given that *m*∠*RPS* = 30° and *RT* = 6, find the indicated measure. 2. *m***∠***QPR* 3. *m***∠***QTP* 4. *RP* 5. *QT* |
| 1. **Find the value of each variable in the parallelogram.** | 1. **Find the value of each variable in the parallelogram.** |
| 1. **Find the a) perimeter and b) area of the parallelogram.**     7 m | 1. One quadrilateral has parallel opposite sides and another quadrilateral has congruent opposite sides. What types of shapes could both be? |